In the Claims

Claims 1-7, 20-27, 35-38, and 45-56 are pending in the application with claims 1, 6, 35, 36, 53, and 55 amended herein.

1. (currently amended) A dielectric material forming method comprising:

forming a first monolayer;

forming a second monolayer on the first monolayer, one of the first and second monolayers comprising tantalum and oxygen and the other of the first and second monolayers comprising oxygen and zirconium; and

forming a dielectric layer comprising the first and second monolayers with 2-20% of the dielectric layer being oxygen and zirconium that is provided as in the other of the first and second monolayers, the dielectric layer exhibiting a dielectric constant greater than the first monolayer and second monolayer.

2. (original) The method of claim 1 wherein the first monolayer comprises tantalum and oxygen.

3. (original) The method of claim 1 wherein the second monolayer comprises tantalum and oxygen.

4. (original) The method of claim 1 wherein the first monolayer comprises tantalum pentoxide.

5. (previously presented) The method of claim 1 wherein the other of the first and second monolayers consists of oxygen and zirconium.

6. (currently amended) The method of claim 1 ~~wherein the forming of~~ further comprising annealing the dielectric layer ~~comprises annealing~~.

7. (original) The method of claim 1 wherein the forming of the first or second monolayer comprises atomic layer depositing.

Claims 8-19 (canceled).

20. (previously presented) A dielectric material forming method comprising:

chemisorbing alternated monolayers of a first dielectric material and a second dielectric material over a substrate; and

providing fewer monolayers of the second material compared to the first material with 2-20% of the monolayers being monolayers of the second material, the first material comprising tantalum and oxygen and the second material comprising oxygen and zirconium.

21. (previously presented) The method of claim 20 wherein from about 5% to about 15% of the monolayers are second material monolayers.

22. (original) The method of claim 20 further comprising approximately evenly interspersing the second material monolayers among the first material monolayers.

23. (original) The method of claim 20 further comprising chemisorbing a majority of the second material monolayers on an underlying second material monolayer.

24. (original) The method of claim 20 wherein the first material comprises tantalum pentoxide.

25. (previously presented) The method of claim 20 wherein the second material further comprises titanium.

26. (original) The method of claim 20 wherein the chemisorbing of the monolayers comprises atomic layer depositing.

27. (original) The method of claim 20 further comprising annealing the monolayers.

Claim 28-34 (canceled).

35. (currently amended) A dielectric material forming method comprising:

atomic layer depositing a plurality of monolayers, each of the plurality of monolayers comprising both an oxide of zirconium and tantalum oxide; and

forming a dielectric material comprising the zirconium oxide and the tantalum oxide, the dielectric material exhibiting a dielectric constant greater than that of tantalum oxide and zirconium oxide.

36. (currently amended) A dielectric layer comprising a first monolayer comprising tantalum and oxygen and a second monolayer comprising oxygen and zirconium with 2-20% of the dielectric layer being oxygen and zirconium that is provided as in the second monolayer, the dielectric layer exhibiting a dielectric constant greater than the first monolayer and second monolayer.

37. (original) The dielectric of claim 36 wherein the first monolayer comprises tantalum pentoxide.

38. (previously presented) The dielectric of claim 36 wherein the second monolayer consists of oxygen and zirconium.

Claims 39-44 (canceled).

45. (previously presented) An enhanced dielectric material comprising alternated chemisorbed monolayers of a first dielectric material and a second dielectric material over a substrate, the enhanced dielectric material comprising fewer monolayers of the second material compared to the first material with 2-20% of the monolayers being monolayers of the second material, the first material comprising tantalum and oxygen, and the second material comprising oxygen and zirconium.

46. (previously presented) The dielectric of claim 45 wherein from about 5% to about 15% of the monolayers are second material monolayers.

47. (original) The dielectric of claim 45 wherein the second material monolayers are approximately evenly interspersed among the first material monolayers.

48. (original) The dielectric of claim 45 wherein a majority of the second material monolayers contact an underlying second material monolayer.

49. (original) The dielectric of claim 45 wherein the first material comprises tantalum pentoxide.

50. (previously presented) The dielectric of claim 45 wherein the second material further comprises titanium.

51. (previously presented) The method of claim 1 wherein 5-15% of the dielectric layer is the other of the first and second monolayers.

52. (previously presented) The method of claim 36 wherein 5-15% of the dielectric layer is the second monolayer.

53. (currently amended) A dielectric material forming method comprising:

atomic layer depositing alternated monolayers of a first dielectric material consisting of tantalum and oxygen and a second dielectric material consisting of zirconium and oxygen over a substrate; and

providing fewer monolayers of the second material compared to the first material with 8-10% of the monolayers being monolayers of the second material; and

annealing the monolayers, the annealed dielectric material exhibiting a dielectric constant greater than the first material and second material and less current leakage than the first material.

54. (previously presented) The method of claim 53 further comprising atomic layer depositing monolayers of a third dielectric material consisting of titanium and oxygen with 5 to 15% of the monolayers being monolayers of the third material.

55. (withdrawn-currently amended) An enhanced dielectric material comprising alternated, atomic layer deposited monolayers of a first dielectric material consisting of tantalum and oxygen and a second dielectric material consisting of zirconium and oxygen over a substrate, the enhanced dielectric material containing fewer monolayers of the second material compared to the first material with 8-10% of the monolayers being monolayers of the second material and the enhanced dielectric material exhibiting a dielectric constant greater than the first material and second material and less current leakage than the first material.

56. (withdrawn) The method of claim 55 further comprising atomic layer deposited monolayers of a third dielectric material consisting of titanium and oxygen with 5 to 15% of the monolayers being monolayers of the third material.